



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,839	10/22/2003	Clement Hiel	CTC001-2	5404
35846	7590	11/29/2004	EXAMINER	
THE MCINTOSH GROUP 8000 E. PRENTICE AVE. SUITE B-6 ENGLEWOOD, CO 80111			NGUYEN, CHAU N	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/690,839

Applicant(s)

HIEL ET AL.

Examiner

Chau N Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 47-62 and 75-90 is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12, 16-19, 24-35, 37-39, 43-45, 63, 64 and 67-74 is/are rejected.
- 7) ☒ Claim(s) 9, 13-15, 20, 21, 23, 36, 40-42, 46, 65 and 66 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/24/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to because Figure 3 is not included in the drawings as described in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective

action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 2, 9, 29, 31, 36, and 66 are objected to because of the following informalities:

in claim 2, line 3, change "and" to --an--,

in claim 9, line 1, after "wherein" insert --the at least one compression implement comprises--,

in claim 29, line 3, change "and" to --an--,

in claim 31, line 3, change "and" to --an--,

in claim 36, line 1, after "wherein" insert --the at least one compression implement comprises--,

in claim 66, line 1, change "63" to --65--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 43-45, 63, 64, 67-69 and 73-74 are rejected under 35 U.S.C. 102(e) as being anticipated by Quesnel et al. (6,805,596).

Quesnel et al. discloses a mechanical fitting (Figure 8) to connect a first aluminum conductor composite core reinforced cable and a second aluminum conductor composite core reinforced cable, each cable having a composite core surrounded by a conductor, comprising at least one compressing body having at least one cavity to mate with composite core from the cable, wherein the at least one compressing body is fixed to the core; and a rigid enclosure, wherein the rigid enclosure encapsulates the at least one compressing body; wherein tension on the

cable causes the at least one compressing body to compress the core (re claim 43). Quesnel et al. also discloses the at least one compressing body being formed from at least two sections, and wherein the at least two sections close together to compress the composite core (re claim 44), the at least two sections have an indentation on an inner surface along a longitudinal axis, the indentation on the at least two sections form a lumen inside the at least one compressing body when the at least two sections are brought together, and wherein the lumen accepts the composite core (re claim 45). Quesnel et al. also discloses a method to terminate a cable comprising exposing a core of the cable, inserting the core of the cable into a compressing body, compressing the body to hold frictionally the core of the cable, coupling a connector to the body and attaching the connector to a structure to physically terminate the dead end (Figure 7) (re claim 63), inserting the body into a rigid enclosure (re claim 64), slipping a conductor sleeve (48) over the dead end to conduct electricity from the conductor of the cable (re claim 67), a jumper terminal (22) being attached to the conductor sleeve to conduct electricity from the conductor sleeve to the end user (re claim 68), and a void being created between the conductor on the cable and the compressible body when the compressible body is compressed (re claim 69). Re claims 73 and 74, the splice of Quesnel et al. can

maintain a tension in the cable of greater than 33,000 pounds since it comprises structure and material as claimed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-8, 10-12, 16-19, 22, 24-35, and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore (4,627,490).

Moore discloses a compression fitting comprising a compressible body (45, Figure 2) having at least one cavity to mate with the core of a first cable and the core of a second cable, a rigid enclosure encapsulating the compressible body to prevent the body from expanding when compress, the enclosure having at least one opening to expose the at least one cavity to enable the body to mate with the core, and at least one compression implement (55) that fits into the at least one opening, wherein the compression implement compresses the compressible body, and wherein compressing the compressible body holds the core of the cables with frictional forces (re claims 1, 28). Moore does not specifically disclose the fitting is used to connect a first aluminum conductor composite core reinforced cable and a second aluminum conductor composite core reinforced cable. However, it would have been obvious to one skilled in the art to use the fitting of Moore to connect a first aluminum conductor composite core reinforced cable and a second aluminum conductor composite core reinforced cable since the fitting of Moore comprises structure and material as claimed and since it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the

claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Moore also discloses the compressible body being an elongated cylindrical body having a first end and a second end, wherein a first cavity creates an opening in the first end and axially extends along the length of and within the compressible body almost to a midpoint of the compressible body, and wherein a second cavity creates an opening in the second end and axially extends along the length of and within the compressible body almost to the midpoint of the compressible body (re claims 2, 29), the first cavity mating with the core of the first cable and the second cavity mating with the core of the second cable (re claims 3, 30), the compressible body being an elongated cylindrical body having a first end and a second end, the cavity creates and an opening in the first end and the second end and axially extending the entire length of along and within the compressible body (re claims 4, 31), the core of the first cable being inserted into the cavity at the first end and the core of the second cable is inserted into the cavity at the second end (re claims 5, 32), the compressible body is an elastomer (re claims 6, 33), the rigid enclosure is

a tube with a first open end and a second open end that accepts the compressible body (re claims 7, 34), the first open end allowing the core of the first cable to mate with the compressible body and the second open end allowing the core of the second cable to mate with the compressible body (re claims 8, 35), the at least one compression implement (55) being a compression nut that threads into the at least one opening of the rigid enclosure, wherein the compression nut compresses the compressible body (col. 4, lines 11-45) (re claims 11, 38), a washer (15) placed between the compression nut and the compressible body in the at least one opening to prevent binding in the compressible body when the compression nut is turned (re claims 12, 39), and a void being created between the conductor and the compressible body (re claim 22). Re claims 10 and 37, it would have been obvious to one skilled in the art to use steel for rigid enclosure of Moore since steel is well-known in the art for being used as enclosure because of its corrosion resistance. Claims 16-19 are method counterparts of claims 1 and 12. Re claims 24-25, it would have been obvious to one skilled in the art to use a suitable compressive force in the fitting of Moore to meet the specific use of the resulting device since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Re claims 26-27, the splice of Moore can

maintain a tension in the cable of greater than 33,000 pounds since it comprises structure and material as claimed.

8. Claims 70-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quesnel et al.

Quesnel et al. discloses the invention substantially as claimed except for the void being filled with a substance to prevent moisture penetration into the void. Although not specifically disclosed by Quesnel et al., it would have been obvious to one skilled in the art to fill the void of Quesnel et al. with a substance to prevent moisture penetrating the void since using a substance to fill a void to prevent moisture penetrating the void is known in the art (re claim 70). Re claims 71 and 72, it would have been obvious to one skilled in the art to use a suitable compressive force in the fitting of Quesnel et al. to meet the specific use of the resulting device since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

Allowable Subject Matter

9. Claims 47-62 and 75-90 are allowed.

10. Claims 9, 13-15, 20, 21, 23, 36, 40-42, 46, 65, and 66 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or suggest a mechanical fitting comprising all the features as recited in the claims and in combination with a first compression implement fitting over the composite core of the first cable and into the first opening of the rigid enclosure and a second compression implement fitting over the composite core of the second cable and into the second opening of the rigid enclosure (re claims 9, 36), a conductor enclosure that slips over the rigid enclosure and connects the conductor of the first and second cables (re claims 13, 20, 40), the composite core having one or more notches along the length of the core mated with the compressible body, the compressible body expanding into the notch when compressed (re claims 15, 42), the void being filled with a substance to prevent moisture penetrating into the void (re claim 23), the at least two sections, when brought together, forming a compressible body that is conic shaped (re claim 46), a compression fitting dead end in combination with a compression implement that fits into the at least one opening and compresses the compressible body to hold

the composite core of the cable with frictional force (re claims 47, 65, 75), claim 66 being allowed only if amended to depend on claim 65.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/690,839
Art Unit: 2831

Page 13

A handwritten signature in black ink, appearing to read "Chau N Nguyen", with a long horizontal flourish extending to the right.

Chau N Nguyen
Primary Examiner
Art Unit 2831